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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION

OF: MIELKE ET AL.

SERIAL No. 10/049,503

FILED: FEBRUARY 13, 2002

FOR: COLORANT PREPARATIONS

Box: AF

CONFIRMATION No.: 7627

GROUP ART UNIT: 1714

EXAMINER:
KRIELLION A. SANDERS

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Alexandria, Va 22313-1450, on:

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P.O. Box 1450
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REPLY UNDER 37 C.F.R. §1.116

Sir:

In reply to the Office action of January 22, 2004, it is respectfully requested that the following request for reconsideration be entered and considered:

REQUEST FOR RECONSIDERATION

Claims 1 to 11 as attached to the preliminary amendment submitted upon filing of the application are currently pending.

Claims 1 to 11 relate to ink-jet inks which comprise as essential constituents

- A) at least one dispersed (A1) or dissolved (A2) colorant,
- B) a dispersant in the case of a colorant (A1),

- C) a low molecular weight polytetrahydrofuran (C1), if desired in mixture with one or more high-boiling water-soluble or -miscible organic solvents (C2), and
- D) water.

The Examiner has finally rejected Claims 1 to 11 as being unpatentable in light of the teaching of *Herrmann et al.* (US 6,332,943) under the provisions of 35 U.S.C. §102(e) or, in the alternative, under the provisions of 35 U.S.C. §103(a).

With regard to the provisions of 35 U.S.C. §102(e), the Examiner takes the position that "*Herrmann et al.* discloses all of the claimed components of applicant's presently claimed invention. This includes colorant, dispersant, polytetrahydrofuran, solvent, water and binder"¹⁾. The following sections (1) to (4) of *Herrmann et al.*'s disclosure are referenced by the Examiner in support for her position.

(1) Col. 4, indicated lines 4 to 38, of US 6,332,943

The referenced section of *Herrmann et al.*'s disclosure addresses the weight percentages in which the pigments (a)²⁾ are present in *Herrmann et al.*'s printing ink, and otherwise addresses the nature of the water-soluble dispersant component (b). The section does not deal with further ingredients of *Herrmann et al.*'s printing ink. The section does not mention polytetrahydrofuran.

(2) Col. 6, indicated line 58, to col. 7, indicated line 45, of US 6,332,943

The part in column 6 of the referenced section addresses the weight percentages in which the dispersants (b) are present in *Herrmann et al.*'s printing ink. At the outset of column 7, *Herrmann et al.* address component (c) providing

Water is the main constituent ... [(c)] of the pigment preparation of the invention. The water content is generally within the range of ...

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- 1) Office action dated August 26, 2003, page 2, indicated lines 16 to 18, emphasis added.
- 2) *Herrmann et al.* designate the constituents of the printing ink with capital letters. To facilitate a distinction between the constituents of applicants' ink and the constituents of *Herrmann et al.*'s ink, the letter designation of *Herrmann et al.* is indicated in small letters.

Subsequently, *Herrmann et al.* address water retention promoters which are designated as constituent (d). As suitable compounds *Herrmann et al.* refer to polyhydric alcohols, polyalkylene glycols, "water soluble solvents which are slow to evaporate, such as *N*-methylpyrrolidone, 2-pyrrolidone and ethoxylated products of glycerol and pentaerythritol". Additionally, *Herrmann et al.* mention the presence of optional conventional auxiliaries. The section does not mention polytetrahydrofuran.

(3) Col. 8, indicated lines 5 to 67, of US 6,332,943

The section of *Herrmann et al.*'s disclosure initially addresses the ink-jet process and then turns to the function of binders therein, and their nature. The section does not mention polytetrahydrofuran.

(4) Col. 10, indicated line 44, of US 6,332,943

The referenced line reads "ethers such as tetrahydrofuran, may likewise be used as well." The statement concludes the disclosure concerning radiation curable binders, the complete sentence reading as follows:

As radiation-curable binders there may further be used epoxy compounds, such as ... and glycidyl ethers, eg. ..., in which case cationically polymerizable monomers, for example ..., dienes such as ..., aromatic vinyl compounds such as ..., *N*-substituted vinylamines such as ... and cyclic ethers such as tetrahydrofuran, may likewise be used as well.

(line 44 emphasized). Polytetrahydrofuran is not mentioned.

A claim is anticipated only if each and every element as set forth in the claim is found in a single prior art reference³⁾, and the test for anticipation is one of identity, that is the reference must show the claimed invention in as complete detail as is contained in the claim⁴⁾. The disclosure of *Herrmann et al.* clearly falls short from identically showing each of the elements which are essential to applicants' ink in as complete detail as is contained in applicants'

3) Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (CAFC 1987).

4) Note Richardson v. Suzuki Motor Co., 868 F.2d 1226, 9 USPQ2d 1913 (CAFC 1989)

claims. At best, applicants' polytetrahydrofurans (C) are encompassed by the generic disclosure of *Herrmann et al.*⁵⁾

Compounds suitable for use as component (D) further include polyalkylene glycols, which term also includes the lower (di-, tri- and tetra-)alkylene glycols. Preference is given to polyalkylene glycols having average molecular weights from 100 to 1500, and polyethylene glycols having an average molecular weight of ≤ 800 are particularly preferred.

However, a genus does not anticipate a claim to a species within the genus, unless the species is clearly named or it can be "at once envisaged"⁶⁾. Moreover, before any species within a prior art genus can be "at one envisaged", a person of ordinary skill in the art must be able to draw the structural formula or write the name of each of the compounds which is included in the generic formula. One may look to the preferred embodiments to determine which compounds can be anticipated⁷⁾.

The expression "polyalkylene glycol" corresponds to a generic formula $\text{HO}-[(\text{CH}_2)_x\text{-O}]_y\text{-H}$ wherein neither x nor y are defined, and a person of ordinary skill in the art is, therefore, not able to draw the structural formula or write the name of each of the compounds which is included in the generic expression. The reference to "lower (di-, tri- and tetra-)alkylene glycols" is a reference to polyalkylene glycols generically represented by formula $\text{HO}-[(\text{CH}_2)_x\text{-O}]_y\text{-H}$ wherein y denotes 2, 3 or 4. The value of x remains, however, undefined so that a person of ordinary skill in the art is still not able to draw the structural formula or write the name of each of the compounds which is included in the generic expression "lower (di-, tri- and tetra-)alkylene glycols". The generic disclosure of *Herrmann et al.*, therefore, lacks the specificity which is necessary to anticipate the polytetrahydrofurans required for applicants' constituent (C). Accordingly, the disclosure of *Herrmann et al.* fails to anticipate applicants' ink within the meaning of Section 102. It is therefore respectfully requested that the rejection of Claims 1 to 11

5) Col. 4, indicated lines 14 to 20, of *US 6,332,943*.

6) Note *Ex parte A*, 17 USPQ2d 1716 (BPAI 1990), *In re Sivaramakrishnan*, 673 F.2d 1383, 213 USPQ 441 (CCPA 1982); note also *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (CAFC 1994); see also *Corning Glass Works v. Sumitomo Electric U.S.A.*, 868 F.2d 1251, 9 USPQ2d 1962 (CAFC 1989), which holds that a genus does not inherently disclose all species; and *In re Jones*, 958 F.3d 347, 21 USPQ2d 1614 (CAFC 1992), which holds that a genus does not render all species that happen to fall within the genus obvious.

7) *In re Petering*, 301 F.2d 676, 133 USPQ 275 (CCPA 1962).

under Section 102(e) based on the disclosure of *Herrmann et al.* be withdrawn.

It is further respectfully requested that the rejection of Claims 1 to 11 under Section 103(a) based on the disclosure of *Herrmann et al.* be withdrawn. Effective November 29, 1999, 35 U.S.C. 103(c) provides that subject matter developed by another which qualifies as "prior art" only under one or more of subsections 35 U.S.C. 102(e), (f) and (g) is not to be considered when determining whether an invention sought to be patented is obvious under 35 U.S.C. 103, provided the subject matter and the claimed invention were commonly owned at the time the invention was made⁸).

Applicants, by undersigned attorney, hereby state that, at the time the invention disclosed and claimed in application Serial No. 10/049,503 was made, the invention was subject to an obligation of assignment to, and US 6,332,943 was owned by, BASF Aktiengesellschaft.

Please charge any shortage in fees due in connection with the filing of this paper, including Extension of Time fees, to Deposit Account No. 11.0345. Please credit any excess fees to such deposit account.

Respectfully submitted,

KEIL & WEINKAUF



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8) Note MPEP \$2146 and \$706.02(1)-\$706.02(1)(3).